

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

DEC 9 2 36 PM '94

DIST. FCC 94-289

In the Matter of)
)
Amendment of Parts 73 and 74 of)
the Commission's Rules to permit) MM Docket No. 94-130
unattended operation of broadcast)
stations and to update broadcast)
station transmitter control and)
monitoring requirements.)

NOTICE OF PROPOSED RULE MAKING

Adopted: November 10, 1994; Released: December 7, 1994

Comment Date: January 20, 1995

Reply Comment Date: February 6, 1995

By the Commission:

INTRODUCTION

1. The primary purpose of this rulemaking proceeding is to determine whether and under what circumstances the Commission should waive the requirement that a broadcast station must have a licensed radio operator on duty in charge of the transmitter during all periods of broadcast operation. Congress recently passed the Telecommunications Authorization Act of 1992, Pub. L. No. 102-538, 106 Stat. 3533 ("Law") to amend the Communications Act of 1934 ("Act") to permit the Commission to consider this option. While this Law concerned the authorization of funding for the National Telecommunications and Information Administration, it also made several amendments to the Act. Specifically, Section 205(1) of the Law amended Section 318 of the Act, which generally requires that the transmitting apparatus of any licensed radio station be operated only by personnel specifically licensed by the Commission. Pursuant to Section 318, the Commission may waive or modify the operator requirement for all but specifically enumerated types of stations. The Law removed from the waiver/modification prohibition "(3) stations engaged in broadcasting" Our proposal includes waiving our current requirement that broadcast station duty operators possess a license or restricted permit. Reducing the application filing burdens and costs imposed on those station employees is part of our effort to reinvent government. Eliminating the application processing requirement will also save Commission resources. Secondly, we propose to update various transmitter control requirements to make them more relevant to unattended operation and to be responsive to commonly asked questions concerning their interpretation.

BACKGROUND

2. Section 73.1860 of the Commission's Rules requires that each AM, FM or TV station must be operated by a licensed transmitter duty operator ("duty operator") holding a commercial radio operator license or permit of any class. Such a person is responsible for the proper operation of the station's transmitter and must be on duty at either the transmitter site¹, a remote control point², or an Automatic Transmission System (ATS) monitor and alarm point.³

3. The majority of duty operators hold the Restricted Radiotelephone Operator Permit (widely called the "RP") which is the lowest class of such a license. Applicants for the RP simply certify that they can keep at least a rough written log, that they are familiar with applicable treaties, laws, rules and regulations governing the radio stations they will operate, that they can speak and hear and that they are legally eligible for employment in the United States. Applicants are not required to pass a written test or otherwise demonstrate their knowledge of station operations to obtain this class of license. There is a nominal application fee and the RP is valid for life.

4. Section 73.1860(c) of our rules specifically requires a broadcast station licensee "to ensure that each transmitter operator is fully instructed and capable to perform all necessary observations and adjustments of the transmitting system and other associated operating duties to ensure compliance with the rules and station authorization." The Commission holds the broadcast station licensee responsible for rule violations or operation that is not in accord with the station authorization.

¹ Extension meters are required in situations where the duty operator is located at the transmitter site, but too far from the transmitting equipment to permit direct visual observation of the meters indicating the status of the station's operation.

² A remote control point is a position at some location other than the transmitter (most often the main studio) from which the transmitter can be monitored and controlled.

³ An Automatic Transmission System consists of monitoring devices, control and alarm circuitry, arranged so that they interact automatically to operate a broadcast station's transmitter and maintain technical parameters within licensed values. In the event of a malfunction, the equipment can be programmed to contact the duty operator so that appropriate remedial action can be undertaken. However, once the ATS determines an out-of-tolerance condition that cannot be corrected within 3 minutes, the station is automatically taken off the air.

DISCUSSION

PART I -- Unattended Operation.

5. Our proposal includes multiple elements: first, we propose to waive the requirement for duty operators at broadcast stations; second, for those stations that choose to retain duty operators, we propose to waive the requirement that the duty operator hold an RP; and third, we propose various changes to those rules that would be affected by our waiving the duty operator requirements. Our basic premise in this proceeding is that the requirement for a licensed duty operator and the costs and burdens imposed by such requirement no longer appear to be necessary or appropriate in light of the many improvements which have been made in the stability, reliability and automatic control of transmission systems.

Duty Operator Requirement

6. We propose to waive the requirement for duty operators at broadcast stations and thus permit their unattended operation. Today many stations function (particularly during the evening and early morning hours) with the duty operator located at a control point at the duty operator's home or some other location. Some licensees use employees of telephone answering services as duty operators. Where station programming is provided by satellite, technical systems may be employed to permit station control from a location a great distance away. There are firms which provide third-party transmitter control (duty operator) services for licensees who wish to automate their stations for part (or all) of the day. Our knowledge obtained from inspecting stations and reading the technical literature suggests that in many such cases, with ATS equipment, it is rare that the duty operator is contacted (by the ATS monitoring equipment) concerning equipment malfunction. It thus appears that modern monitoring and control equipment has rendered the need for the duty operator largely superfluous for a great many stations, and this level of automation should be readily available to most broadcasters.

7. This proposal is also based on our belief that most broadcasters exercise due diligence in the operation of their stations. We want to emphasize that the changes in the rules that we propose in no way diminish, much less eliminate, the responsibilities of licensees to adequately monitor technical operation and to adjust and maintain their stations in compliance with the technical rules. Over the years we have altered our approach to technical regulation in the broadcast services, shifting away from step-by-step "how to" language in the rules, to focusing more on licensees' exercise of good judgment. Our intent has been to allow licensees to adopt the most cost-effective operating and maintenance policies appropriate for their stations. We have stated that licensees who do not show

reasonable effort to ensure proper station operation will be viewed as willfully violating the rules.⁴

8. We continue to believe that this approach is sound. However, because permitting unattended operation represents a significant change in our policies relating to transmitter control, we want to explore the potential ramifications thoroughly. In particular we solicit comment on whether concluding that duty operators are not generally necessary might encourage negligence or irresponsibility on the part of certain broadcast licensees, with the result that interference levels in the various broadcast services might be exacerbated.

9. Under our primary proposal, licensees would be afforded maximum operational flexibility to employ any of a number of methods of transmitter control. Direct manual or remote control by a station employee or other person designated by the licensee would remain an option. Another method of achieving such compliance would be the use of specially designed, highly stable state-of-the-art transmitters. The use of accurate automated measurement and control (ATS-like) equipment would be another method of achieving reliable, unattended system control. A discussion of the specific requirements is contained in Part II of this document. Whatever method is employed should be based on the design characteristics of the particular technical facilities. From an enforcement standpoint, we propose to place more emphasis on the technical integrity of emitted signals than with the method of transmitter control.

10. As an alternative to the above, we seek comment on whether we should permit unattended operation of broadcast stations only if they are ATS-equipped, inasmuch as such stations are required to go off the air if operating parameters conducive to interference go out of tolerance. Under the current rules, in such an eventuality, the ATS equipment would contact the duty operator to report the technical problem so that appropriate remedial action could be undertaken. Under a potential new rule, because no one would be required to be notified about an out-of-tolerance condition, the transmitter could simply be taken off the air by the ATS equipment after a short period of time.

11. We request specific comment on whether some types of stations (particularly directional AM stations without approved antenna sampling systems, which we believe to be potentially the most technically unstable type of broadcast station) should be excluded from unattended operation under the proposed rules.⁵ We

⁴ See Report and Order in BC Docket No. 82-537, FCC 83-338, 48 FR 38473, August 24, 1983.

⁵ We estimate that there are about 200 such AM stations.

request comment on whether licensees of these stations would particularly benefit from the unattended operation we herein propose, and whether unattended operation is appropriate from an operational standpoint. We believe that licensees could operate their stations properly in the unattended mode with monitoring equipment which would measure and record their directional antenna performance every three hours. However, we solicit comment on the degree to which such a requirement is actually necessary; and if it is, to what degree these licensees can afford to install the appropriate equipment.

12. We also ask for comment on any other circumstances that may not lend themselves to effective unattended station operation. With respect to the unique problems associated with AM station operation, for example, we welcome comment on whether equipment exists which can reliably verify that a successful change has been made from the daytime to nighttime antenna pattern (and vice versa) and whether the appropriate transmitter power level can be verified. Can these types of station changes be fully automated, or do they require human verification?

13. We want to emphasize that in proposing to permit unattended operation at all or at some stations we would not preclude licensees from operating their stations in the attended mode, which requires that some responsible person be in charge of the station. However, even if a person performing the function of a duty operator is employed optionally, we question the need to specify their duties in detail, as they could vary widely from station to station. Parties are asked to comment on the various proposals above and their underlying assumptions, and to bring to our attention any aspect of the proposal that we may have overlooked. We also seek information on the benefits derived by licensees from any waiver or diminution of our operator requirements.

14. While we have focused on AM, FM and TV stations licensed under Part 73 of our rules, we also propose to offer similar flexibility to low power TV stations, which are authorized under Part 74. In addition, we seek comments on whether it is appropriate to consider changes to the operator requirements for international broadcast stations authorized pursuant to Subpart F of Part 73 or experimental broadcast stations authorized pursuant to Subpart A of Part 74. We request comment on whether circumstances exist that warrant different treatment for low power TV, international broadcasting or experimental broadcast station licensees. In this inquiry, we are cognizant that Section 318 of the Act continues to prohibit waiver of the operator requirement where required by international agreement or where licensed operators are required for safety purposes. 47 U.S.C. § 318. Commenters are requested to address the implications of these statutory provisions, and particularly the latter issue of safety. We also note that

various rule sections concerning broadcast auxiliary, ITFS and FM translator services refer to operators and would need to be modified.

15. We also request comment on the effect of our proposal on two important responsibilities imposed on broadcast licensees that may or may not be assigned to duty operators. The duty operator may be tasked with verifying that the antenna tower lighting system is functioning properly. However, automating this function does not seem technically difficult. Moreover, continuous monitoring of tower lighting electronically would appear to provide greater aviation safety benefits than having a duty operator or other station employee personally check the lights only once a night. Nevertheless, recognizing that this is a particularly important issue, we request comment on the degree to which this function has already been automated and to what degree such automation is possible in view of the goals of this proceeding. We note that the current rules do not require that this function be performed by the duty operator. Any station employee may be delegated this responsibility.

16. The duty operator also may be charged by the licensee with the responsibility for monitoring for Emergency Broadcast System (EBS) alerts, logging their receipt, and determining the appropriate response to be taken. The current EBS system is under review in FO Docket Nos. 91-301 and 91-171.⁶ Briefly, in a Report and Order and Further Notice of Proposed Rule Making adopted concurrently with this Notice, the current EBS alerting procedures will be phased out and replaced with a new Emergency Alert System (EAS) which may be completely automated at the discretion of each licensee.⁷ As new EAS equipment should be available by the time this proceeding is completed, we seek comment as to whether we need to consider how licensees might automate the current EBS system.

17. In considering when we might make the proposed rule changes effective, we note that the current emergency broadcast system does, for the most part, require manual intervention; retention of the operator requirement until the current equipment is replaced might help ensure a prompt and proper response to EBS

⁶ See Notice of Proposed Rule Making/Further Notice of Proposed Rule Making in FO Docket Nos. 91-301 and 91-171, 7 FCC Rcd 6903 (1992), which consolidated actions under consideration in the Notice of Inquiry in FO Docket No. 91-171, 6 FCC Rcd 4265 (1991) and the Notice of Inquiry in FO Docket No. 91-301, 6 FCC Rcd 6739 (1991).

⁷ See Report and Order and Further Notice of Proposed Rule Making in FO Docket Nos. 91-171 and 91-301, FCC 94-288, adopted November 10, 1994.

activations and tests. Therefore, it may be appropriate to establish the effective date for the waiver of the requirement for duty operators to coincide with the date that new EAS equipment becomes mandatory for broadcasters. However, we have decided that we will authorize use of the new EAS equipment on a state or local area basis in advance of the overall conversion date when certain conditions are met.⁸ Accordingly, to encourage that process, we could permit those stations which are authorized to use the new EAS equipment to operate unattended after the new EAS equipment has been installed and the stations are otherwise equipped to meet their operational responsibilities. We seek comment on whether this proposal will promote the rapid implementation of the new Emergency Alert System.

18. If a commenting party supports retention of the operator requirement for certain functions or certain classes of stations, we request they provide us with information which demonstrates that tangible benefits would derive from its retention.

PART II -- Related rule changes and other clarifications

RP Requirement

19. We now consider the question of whether, for those stations that choose to retain duty operators, the duty operator should be required to hold an RP. It appears that the knowledge and physical capabilities required for the RP do not differ materially from those required of any other station employee, nor do they suggest some critical or indispensable skills without which stations could not function safely and properly. It thus appears that the requirement that a duty operator possess an RP has little or no impact on the quality of a broadcast station's operation.

20. Moreover, the duties explicitly imposed on duty operators by our rules would not ordinarily justify the employment of a person for that purpose alone. Duty operators are tasked with ensuring the proper technical operation of the broadcast transmitter during the times they are on duty. This entails routinely reading the meters of the station transmitter or special measurement instruments that indicate a station's operating parameters, such as power and modulation. For directional AM stations it may also mean checking the antenna base currents (to determine the power actually fed to each antenna) and each antenna's sample current amplitudes and phase relative to the reference antenna (when all of these parameters

⁸ See "Implementation timetable" discussion in Report and Order and Further Notice of Proposed Rule Making in FO Docket Nos. 91-171 and 91-301, FCC 94-288, adopted November 10, 1994.

are within tolerance, the directional array can usually be assumed to be performing properly).

21. Licensees usually require duty operators to perform many functions at their stations in addition to those required by our rules. For radio stations, this often includes aurally monitoring the station's broadcast signal to ensure that audio quality is satisfactory and that any studio-to-transmitter ("STL") equipment that may be used is operating properly. Operators may also be required to clean and maintain tape recorders and other types of program source equipment so as to ensure their proper frequency response and distortion levels, to make copies of commercials for airing, or to record events or programs for future broadcast. However, none of these duties require possession of an RP, nor are they required by the Commission's Rules. The duties just enumerated could be done by any station employee with the required expertise or training. We thus propose to waive the RP requirement for duty operators, and seek comment on this proposal.

22. We turn next to a discussion of specific aspects of traditional station operation which would be affected by the proposed change in our policy with respect to transmitter control.

23. Several incidental benefits, such as potentially reducing the cost of complying with metering requirements, would result from the regulatory changes proposed above. For example, no longer specifying the duty operator's position would permit us to eliminate the proximity and adjustment requirements currently contained in Section 73.1860(b). Because the rules generally do not specify how often meters must be read, the distance between the duty operator's normal position and the transmitter's indicating meters does not appear to be particularly important and therefore, not in need of specification. This proposed change would also make it appropriate to delete Section 73.1550, which specifies the requirements for extension meters. This would eliminate any need for licensees to install cameras so as to be able to view transmitter meters at a remote location -- an alternative currently permitted in lieu of using extension meters. In addition, references to extension meters would be eliminated from Sections 73.53, 73.57, 73.69, 73.1230, 73.1820, and 73.1860. In constructing the proposed rule changes, we attempted to improve the rules' clarity. For example, Section 73.57(d) currently requires calibration of remote reading antenna and common point ammeters as often as necessary to ensure their accuracy. This provides little useful guidance. The essential requirement in Section 73.57(d) is that each such ammeter be accurate within 2% of the value read on the station's corresponding regular ammeter. We propose to change the rule to require just that. We would reiterate that in eliminating these "how to" kinds of requirements, licensees would still be free to

employ the former traditional transmitter monitoring techniques; but again, such a decision should be consistent with the broader objective of monitoring and adjusting technical parameters to ensure that stations comply with the rules and conform to their authorizations.

Contact Person

24. We believe that at times it may be useful for the Commission or other government agencies to be able to contact broadcast licensees promptly. One possibility for achieving this might be for each licensee to provide the Commission with the name and telephone number of a contact point, as is currently required by Section 74.734(a)(4) of our rules for unattended operation of low power TV and TV translator stations and by Section 74.1234(a)(4) of our rules for unattended operation of FM translator and FM booster stations. In considering this possibility, we recognize that there are over 13,000 AM, FM and TV broadcast stations and we are concerned that attempting to maintain such a master list could be unwieldy, time consuming and largely ineffective. However, if a master list were placed on a data base accessible to broadcast licensees, perhaps a system could be devised whereby a licensee, through the use of a telephone and a password allowing access to that licensee's information only, could update the list and make any necessary changes on his or her own. Thus, the Commission would only need to verify that the licensee has placed information on the system (say at the time of granting or renewing the license) and then the responsibility of keeping the information current would lie with the individual licensees. In this way, Commission access to the information would be prompt (a database search would take seconds) while the process of keeping the information current could be made less burdensome both to the Commission and individual licensees through the automated update procedure. We note that another alternative might be derived from current requirements in Sections 74.765 and 74.1265 of our rules that the telephone number and address of the licensee or the licensee's local representative must be posted at the station's transmitter site on the structure supporting the transmitting antenna. Those rules, which apply to low power TV, TV translator, TV booster, FM translator and FM booster stations, require the display to be visible to a person standing on the ground and maintained in legible condition. Accordingly, we seek comment on whether this objective is reasonably attainable and solicit any concrete suggestions. Alternatively, are there informal procedures in place that are effective and obviate the need for a more regulatory approach?

Maximum time period for non-compliance correction

25. In some cases the current rules set varying time limits for correcting out-of-tolerance conditions. For example, Section

73.1410(e), which governs operation of remotely controlled transmitters, requires that if a malfunction causing operation beyond the terms of the station authorization cannot be corrected by remote control, operation must terminate immediately. Section 73.1500(e) requires automatic transmission systems to terminate station transmission within three minutes if an operating condition capable of causing interference is not corrected. Section 73.1560(d) permits operation at reduced power to continue, if the licensee notifies the FCC by the tenth day of reduced power operation. In many circumstances, such as at a directly controlled transmitter or with an operating condition that poses no threat of interference, the existing rules give no guidance regarding how long an out-of-tolerance condition can continue while correction is attempted. These varied requirements have lead to confusion, not only about correcting out-of-tolerance operating conditions, but also about the underlying responsibility to operate stations in accordance with the technical rules. To emphasize that stations must comply with the tolerances specified in the various technical rules, we propose to clearly establish procedures for continued operation with some additional out-of-tolerance conditions that pose little or no threat of interference, while removing language that seems to suggest it is permissible to continue operating while trying to correct an out-of-tolerance condition that is capable of causing interference.

26. Out-of-tolerance conditions fall into one of two categories. Conditions in the first category are those which pose little or no threat of increasing interference to other stations. Some of these conditions are addressed in the existing rules with procedures for continuing operation. This includes reduced power operation, use of an emergency antenna pursuant to Section 73.1680, and operation during modification of facilities in accordance with Section 73.1615. Other rules that permit temporary non-conforming operation include Sections 73.58, 73.68, 73.69, 73.258, 73.688, 73.932 and 73.1550, which address malfunctioning monitors and indicating instruments. Other conditions, such as TV visual waveform carrier levels and timing tolerances, and undermodulation also appear to fit in this category.

27. Accordingly, we propose to modify Section 73.691 and 73.1570, respectively, to establish procedures for such variances. The Commission generally uses a special temporary authorization (STA) to permit a station to operate for a limited period of time at a specified variance from the terms of its authorization or the requirements of our rules. Each STA is limited to a maximum duration of six months, but it can be renewed. We propose to expand the list of rules cited in Section 73.1635(a)(5) of the current STA rule, to identify the additional types of out-of-tolerance conditions that do not require immediate Commission approval. We propose that notification to

the Commission be required if these out-of-tolerance conditions exceed ten days, and authority (STA) from the Commission be required if the conditions remain after 30 to 90 days. We request comments on our proposals, as well as suggestions of other specific parameters that can be occasionally out-of-tolerance and not readily adjusted to proper operation but with no risk of interference. We only propose rules to govern temporary continuation of non-compliant operation. Changing or eliminating the underlying technical requirements is beyond the scope of this proceeding.

28. The second category of out-of-tolerance conditions are those that are capable of causing interference. Examples of operating conditions in this category are overmodulation, carrier not within frequency tolerance, AM directional array parameters out-of-tolerance, excessive AM monitoring point field strengths, incorrect antenna pattern and the transmission of excessive power (typically the use of daytime power at night by an AM station). The current rules require that such conditions be corrected more or less immediately in the case of ATS and remotely controlled stations; otherwise station operation must be terminated. We believe this requirement should be consistent for all types of station operation. Therefore, we propose to apply the three minute limit currently applicable to ATS stations (and which we regard as functionally "immediate") to remote and directly controlled stations. It is for this reason that "immediate" has been replaced by "within three minutes" in the proposed rules set forth in Appendix A.

29. Nevertheless, we seek comment on whether the three minute time limit affords adequate opportunity for remedial action. Clearly, equipment malfunction capable of causing interference cannot be permitted to continue for more than a brief period while remedial action is attempted. Most types of equipment malfunction should be capable of correction while the station is operating into a dummy load instead of into its antenna system. Correction of a few types of malfunctions may require putting the station on the air, at least briefly. Therefore, we would propose not to hold a station accountable for out-of-tolerance operation provided it does not continue for periods longer than three minutes. This time length would appear adequate to measure a particular parameter to see if it is within the limit. However, we solicit comments on this proposal.

30. For AM stations using directional arrays, additional considerations apply. Whenever array operating parameters fall outside the tolerances specified in Section 73.62, we presume the array is radiating excessively in some direction(s). Unfortunately, ascertaining whether the inverse distance groundwave or skywave field of a directional array exceeds authorized limits is a complex, time consuming, and often, very expensive proposition involving, minimally, the undertaking of a

partial proof of performance. On occasion, however, it is possible, but less likely, that an out-of-tolerance condition for a directional array might not result in excessive radiation or might be caused by transitory events such as severe weather or unusually wet or dry soil conditions. In view of this possibility, forcing a directional AM station to terminate operation or reduce power may be unreasonable.

31. On the other hand, we cannot ignore the possibility that excessive radiation and interference may result if the out-of-tolerance condition continues. Since it is not reasonable to expect the performance of a partial or full proof in the immediate exigencies of such situations, we propose to codify our longstanding policy calling for field strength readings of the monitoring points specified in the station license as the best quickly available and easily determined approximate indicator of radiated field strength until normal array operation has been restored. If any monitoring point exceeds its authorized limit, excessive radiation will be presumed to exist until acceptable station performance is verified by a proof of performance. Because the monitoring points for directional AM arrays are often located miles from the transmitter site and scattered in various directions and over different terrain, a station cannot determine immediately if any of its monitoring point field strengths are excessive. Therefore, in recognition of the unavoidable logistical delays involved in reading the monitoring points, we propose a procedure that starts with recording the out-of-tolerance condition in the station log. Then, we would allow up to 24 hours for the station to dispatch field personnel to read and log all the monitoring point field strengths for each mode of adversely affected directional operation. If any monitoring point field strength is found to exceed its specified limit, the station would be required either to terminate operation or to reduce power. Finally, we believe that all monitoring points should be read and logged again whenever any array parameter changes, as long as it remains out of tolerance. See proposed amendments to Sections 73.62 and 73.158.

Monitoring requirements

32. During normal daily operation, several of a station's operating parameters may vary. Factors such as transmitter and antenna configuration, power line voltage regulation and environmental conditions at the transmitting site determine the degree of variation and whether any particular parameter exceeds compliance limits.

33. We often receive inquiries asking which particular technical parameters should be monitored (and how often) in order for the licensee to comply with the rules. We continue to believe that the optimum monitoring schedule varies from parameter to parameter and station to station. However,

inspections of broadcast stations by our Field Operations Bureau (FOB) reveal many technical violations involving antenna lighting, overpower operation, improper directional antenna patterns, and overmodulation conditions that could be cured if licensees gave closer attention to monitoring operating parameters and the general maintenance and adjustment of their stations. To help licensees meet their responsibility, we propose to list as minimum requirements the basic parameters that every station should be able to monitor and control.

34. We propose that each licensee be able to monitor and adjust its transmitter power and modulation level. In addition, licensees responsible for broadcast towers that require lighting would need to monitor such lighting. Finally, each licensee of an AM station that changes its mode of operation during the broadcast day would need to monitor and control such changes. Licensees of AM stations employing directional arrays would need to be able to monitor and control the array parameters. In the context of unattended operation, the monitoring and control of these parameters must be performed by equipment that would take the station off the air (if a parameter variance capable of causing interference occurred) or else contact some person designated by the licensee (this would appear particularly appropriate in the case of a tower lighting failure).

35. We caution licensees that an occasional glance at a few meter readings does not and cannot constitute an adequate monitoring program. Licensees must implement monitoring procedures to detect and correct problems before technical limits are exceeded. Because actual monitoring procedures, schedules, and technical analyses needed to comply with our rules can vary with each station, we will continue to leave particular methods of implementation largely to the discretion of the licensee. The status of tower lighting must be checked at least once daily consistent with Section 17.47. However, we stress that a licensee must arrange somehow to ensure that transmission system parameters are in compliance and an inability to correct an out-of-tolerance condition would still require termination of station operation (a basic control function that always must be provided). See proposed Section 73.1350(b)(2) and (d).

36. At the present time, carrier frequency measurement is not required on a regular basis (see Section 73.1540), despite the possibility that operation outside the prescribed tolerances could result in interference. We request information on this subject. Specifically, is frequency a parameter that ATS systems typically control and monitor? What useful purposes, if any, would be served by including it in the list of parameters that we propose be monitored and controlled at an attended operation?

Measurement and calibration requirements

37. Our current rules require that some measurements be made as often as necessary to ensure that the station meets our technical standards. Licensees must also measure periodically parameters not normally monitored on a frequent basis to check the overall stability of the station and must have a preventive maintenance program to keep the station in good operating order. This responsibility, now primarily implicit as "good engineering practice," must be met in a reasonable, consistent manner. We believe that proposed Sections 73.1350(f) and 73.1580, set forth in Appendix A, adequately stress this responsibility.

38. Instruments used to monitor station technical parameters must also be calibrated and adjusted to provide an accurate measure of station operation. The accuracy of a measurement is affected by cumulative errors from several sources, including the calibration source, the instrument itself due to environmental and other external factors, and the method of indicating the parameter under measurement. These errors can be predicted using various engineering methods. Such errors must be considered when monitoring a parameter so that the true value of the parameter falls within the relevant technical limits. While the current rules require that instruments be calibrated as often as necessary, they do not address calibration and measurement errors. We propose to add a new Section 73.1350(c)(2) to address how these errors are to be taken into account, as detailed in Appendix A.

Adjustment of the transmitter and antenna system

39. Licensees must also ensure that their transmitters and antenna systems are maintained and adjusted to comply with the rules. Licensees may delegate such duties to technically competent persons. Thus, adjustment of the transmitter may be performed by anyone authorized by the licensee. We propose to make this point more explicit, as in proposed Section 73.1350(b) in Appendix A.

Permissible connection methods for remote control

40. For licensees who may wish to continue to employ remote control operation, we propose to allow the use of any method to connect the employee's remote control and monitoring point with the transmitter as long as it permits the duty operator to quickly turn the transmitter off. Any delay caused by the connection method would be included in the three-minute time period proposed to be allowed for correcting an out-of-tolerance condition. Thus, methods that depend upon non-dedicated control circuits such as "dial up" facilities would require that the transmitter remote control system include an alternate method of quickly acquiring on-off control. We also propose to continue

letting the licensee select how monitoring information will be made available to the responsible employee. Licensees might use dedicated wireline circuits, public switched telephone network circuits, microwave radio circuits, or circuits multiplexed on the broadcast signal. The particular method chosen need not provide continuous data, but the employee must have rapid access to essential monitoring data.

CONCLUSION

41. We believe that the rule changes and deletions we are proposing will be responsive to the desires of broadcast licensees who may prefer to operate their stations in an unattended mode. At the same time, we are proposing revisions to traditional rules which may serve as guidelines for those licensees who desire to continue attended station operation. Also, we believe the proposed changes should be responsive to most of the questions we have received concerning permissible transmitter monitoring and control systems. Other suggestions by interested parties as to how these rules may be amended to provide needed clarity, while retaining the maximum possible amount of operational flexibility, will be welcome.

ADMINISTRATIVE MATTERS

42. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. Sections 1.415 and 1.419, interested parties may file comments on or before January 20, 1995, and reply comments on or before February 6, 1995. To file formally in this proceeding, you must file an original plus four copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C. 20554. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980 and found to impose new and modified information collection requirements on the public. Those proposed rules that contain information collection requirements will be sent to the Office of Management and Budget, which is entitled by law to take up to 60 days to file its comments with us.

43. This is a non-restricted notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission Rules. See generally 47 C.F.R.

Sections 1.1202, 1.1203, and 1.1206(a).

44. As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. The IRFA is set forth in Appendix B. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Secretary shall send a copy of this Notice of Proposed Rule Making, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act. Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. Section 601 et seq. (1981).

45. Further information on this matter may be obtained from James E. McNally, Jr. or Gordon W. Godfrey, Mass Media Bureau, Engineering Policy Branch, (202) 632-9660.

FEDERAL COMMUNICATIONS COMMISSION


William F. Caton
Acting Secretary

Attachments: Appendices A and B

APPENDIX A

Title 47 of the Code of Federal Regulations Parts 73 and 74 are proposed to be amended as follows:

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334.

2. Section 73.53 would be amended by revising paragraph (b) (9) to read as follows:

§73.53 Requirements for authorization of antenna monitors.

* * * * *

(b) * * *

(9) The monitor, if intended for use by stations operating directional antenna systems by remote control, shall be designed so that the switching functions required by paragraph (b) (7) of this section may be performed from a point external to the monitor, and phase and amplitude indications be provided by external meters. The indications of external meters furnished by the manufacturer shall meet the specifications for accuracy and repeatability of the monitor itself, and the connection of these meters to the monitor, or of other indicating instruments with electrical characteristics meeting the specifications of the monitor manufacturer shall not affect adversely the performance of the monitor in any respect. The type approval or notification designations and the instruction manuals for monitors not designated for external switching of the indications as specified in this Paragraph shall clearly show that the monitors are not acceptable for use at stations using remote control for the operation of directional antennas.

* * * * *

3. Section 73.57 would be amended by revising paragraph (d) to read as follows:

§73.57 Remote reading antenna and common point ammeters.

* * * * *

(d) Each remote reading ammeter shall be accurate to within 2 percent of the value read on its corresponding regular ammeter.

* * * * *

4. Section 73.62 would be amended by revising paragraphs (b) and (c) to read as follows:

§73.62 Directional antenna system tolerances.

* * * * *

(b) Whenever the operating parameters of a directional antenna cannot be maintained within the tolerances specified in paragraph (a), the following procedures will apply:

(1) The licensee shall measure and log every monitoring point at least once for each mode of directional operation. Subsequent variations in operating parameters will require the remeasuring and logging of every monitoring point to assure that the authorized monitoring point limits are not being exceeded.

(2) In the event that any monitoring point exceeds its specified limit, the licensee must either terminate operation within 3 minutes or reduce power in accordance with the applicable provisions of §73.1350(d) in order to eliminate any possibility of interference or excessive radiation in any direction.

(3) Regardless of whether any monitoring point is found to exceed its authorized limit, the licensee must request a Special Temporary Authority (STA) in accordance with §73.1635 to continue operation with parameters at variance and/or with reduced power along with a statement certifying that all monitoring points will be continuously maintained within their specified limits.

(4) The licensee will be permitted 24 hours to accomplish the actions specified in paragraphs (b)(1) and (b)(3) of this section; provided that, the date and time of the failure to maintain proper operating parameters has been recorded in the station log.

(c) In any other situation in which it might reasonably be anticipated that the operating parameters might vary out of tolerance (such as planned array repairs or adjustment and proofing procedures), the licensee shall, before such activity is undertaken, obtain an STA in accordance with §73.1635 in order to operate with parameters at variance and/or with reduced power as required to maintain all monitoring points within their specified limits.

5. Section 73.69 would be amended by revising paragraphs (a)(1) and (a)(2) to read as follows:

§73.69 Antenna monitors.

(a) * * *

(1) Normally, the antenna monitor is to be installed immediately adjacent to the transmitter and antenna phasing equipment. When the phasing equipment is located within the antenna field at a distance from the transmitter, the monitor may be located with the phasing equipment in suitable housing such that the temperature variation is maintained at all times within those limits under which the monitor was type approved.

(2) The antenna monitor installed at a station operating a directional antenna by remote control or when the monitor is installed in the antenna field at a distance from the transmitter, must be designed and authorized for such use in accordance with the provisions of §73.53(b)(9).

* * * * *

6. Section 73.158 would be amended by adding a new paragraph (c) to read as follows:

§73.158 Directional antenna monitoring points.

* * * * *

(c) In the event that any monitoring point is found to exceed its specified limit, the licensee must either terminate operation within three minutes or reduce power in accordance with the applicable provisions of §73.1350(d) in order to eliminate any possibility of interference or excessive radiation in any direction.

7. Section 73.691 would be revised to read as follows:

§73.691 Visual modulation monitoring.

(a) Each TV station must have measuring equipment for determining that the transmitted visual signal conforms to the provisions of this subpart. The licensee shall decide the monitoring and measurement methods or procedures for indicating and controlling the visual signal.

(b) In the event technical problems make it impossible to operate in accordance with the timing and carrier level tolerance requirements of paragraphs (a)(9)(i), (a)(9)(ii), (a)(12), (a)(13), and (a)(17) of §73.682, a TV broadcast station may operate at variance for a period of not more than 30 days without

specific authority from the FCC; provided that, the date and time of the initial out-of-tolerance condition has been entered in the station log. If the operation at variance will exceed 10 consecutive days, a notification must be sent to the FCC in Washington, D.C., not later than the 10th day of such operation. In the event normal operation is resumed prior to the end of the 30 day period, the licensee must notify the FCC upon restoration of normal operation. If causes beyond the control of the licensee prevent restoration of normal operation within 30 days, a written request must be made to the FCC in Washington, D.C., no later than the 30th day for such additional time as may be necessary.

8. Section 73.757 would be revised by removing and reserving paragraph (b).

9. Section 73.764 would be removed.

10. Section 73.1010 would be revised by removing and reserving paragraph (c).

11. Section 73.1230 would be revised to read as follows:

§73.1230 Posting of station license.

(a) The station license and any other instrument of station authorization shall be posted in a conspicuous place and in such a manner that all terms are visible at the place the licensee considers to be the principal control point of the transmitter.

(b) Posting of the station license and any other instruments of authorization shall be done by affixing them to the wall at the posting location, or by enclosing them in a binder or folder which is retained at the posting location so that the documents will be readily available and easily accessible.

12. A new Section 73.1300 would be added to read as follows:

§73.1300 Unattended station operation.

Broadcast stations may be operated as either attended (where a designated person is responsible for the proper operation of the station either at the transmitter site, a remote control point or an ATS control point) or unattended (where automated monitoring of station operating parameters is employed). No prior FCC approval is required to operate a station in the unattended mode. However, three days prior to initiating such operation, the licensee must notify the Commission by ordinary mail of its intention.

13. A new Section 73.1350 would be added to read as follows:

§73.1350 Transmission system operation.

(a) Each licensee is responsible for maintaining and operating its broadcast station in a manner which complies with the technical rules set forth elsewhere in this Part and in accordance with the terms of the station authorization.

(b) The licensee must designate a chief operator in accordance with §73.1870. The licensee may designate one or more technically competent persons to adjust the transmitter operating parameters for compliance with the technical rules and the station authorization.

(1) Persons so authorized by the licensee may make such adjustments directly at the transmitter site or by using control equipment at an off-site location.

(2) The transmitter control personnel must have the capability to turn the transmitter off at all times. If the personnel are at a remote location, the control system must provide this capability continuously or must include an alternate method of acquiring control that can satisfy the requirement of paragraph (d) of this section that operation be terminated within 3 minutes.

(c) The licensee must establish monitoring procedures and schedules for the station and the indicating instruments employed must comply with §73.1215.

(1) Monitoring procedures and schedules must enable the licensee to determine compliance with §73.1560 regarding operating power and AM station mode of operation, §73.1570 regarding modulation levels, and, where applicable, §73.1213 regarding antenna tower lighting, and §73.69 regarding the parameters of an AM directional antenna system.

(2) Monitoring equipment must be periodically calibrated so as to provide reliable indications of transmitter operating parameters with a known degree of accuracy. Errors inherent in monitoring equipment and the calibration procedure must be taken into account when adjusting operating parameters to ensure that the limits imposed by the technical rules and the station authorization are not exceeded.

(d) In the event that a broadcast station is operating in a manner that is not in compliance with the technical rules set forth elsewhere in this Part or the terms of the station authorization, and the condition is not listed in paragraph (e) of this section, broadcast operation must be terminated within

three minutes.

(1) Examples of conditions that require termination of operation include excessive power or excessive modulation.

(2) Additional examples for AM stations are any mode of operation not specified by the station license for the pertinent time of day or hours of operation and any condition of antenna parameters or monitoring points out of the tolerances specified elsewhere in this Part or by the station's instrument of authorization. For these conditions, operation must be terminated within three minutes unless antenna input power is reduced sufficiently to eliminate any excess radiation.

(3) For AM stations using directional arrays, additional procedures apply when array operating parameters are at variance, monitoring points exceed specified limits, or authorized directional mode capability is lost. See §§73.62, Directional antenna system tolerances; 73.158, Directional antenna monitoring points; and 73.1680(b), Emergency antennas.

(e) If a broadcast station is operating in a manner that is not in compliance with one of the following technical rules, operation may continue if the station complies with relevant alternative provisions in the specified rule section.

- (1) AM directional antenna system tolerances, see §73.62;
- (2) AM directional antenna monitoring points, see §73.158;
- (3) TV visual waveform, see §73.691(b).
- (4) Reduced power operation, see §73.1560(d);
- (5) Reduced modulation level, see §73.1570(a);
- (6) Emergency antennas, see §73.1680.

(f) The transmission system must be maintained and inspected in accordance with §73.1580.

(g) Whenever a transmission system control point is established at a location other than at the main studio or transmitter, notification of that location must be sent to the FCC in Washington, D.C. within 3 days of the initial use of that point. This notification is not required if responsible station personnel can be contacted at the transmitter or studio site during hours of operation.

(h) The licensee must ensure that the station is operated in compliance with Part 11, the rules governing the Emergency Alert System (EAS).

14. Section 73.1400 would be revised to read as follows:

§73.1400 Transmission system monitoring and control.

The licensee of an AM, FM or TV station is responsible for assuring that at all times the station operates within tolerances specified by applicable technical rules contained in this Part and in accordance with the terms of the station authorization. Any method of monitoring and adjusting a station's technical operating parameters is permissible. The following are typical methods of transmission system monitoring and control:

(a) Attended Operation: Attended operation consists of ongoing supervision of the transmission facilities by a station employee or other person designated by the licensee. Such supervision may be accomplished by either:

(1) Direct supervision and control of transmission system parameters by a person at the transmitter site; or,

(2) Remote control of the transmission system by a person at the main studio or other location. The remote control system must provide sufficient transmission system monitoring and control capability so as to ensure compliance with §73.1350. However, not every station parameter need be monitored or controlled if the licensee has good reason to believe that its stability is so great that its monitoring and control are unnecessary. If a malfunction causes loss of monitoring data, our proposed rule would permit a station to continue to operate for a period not exceeding three hours from the time such loss is discovered, provided that the operator can determine by other means that the station is operating in compliance with our technical rules.

(3) A station may also be monitored and controlled by an automatic transmission system (ATS) that is configured to contact a person designated by the licensee in the event of a technical malfunction. An automatic transmission system consists of monitoring devices, control and alarm circuitry, arranged so that they interact automatically to operate the station's transmitter and maintain technical parameters within licensed values.

(4) A hybrid system containing some remote control and some ATS features is also permissible.

(b) Unattended operation: Unattended operation is the substitution of automated supervision of a station's transmission system for human supervision. It consists of the use of a self-monitoring or ATS-monitored and controlled transmission system that, in lieu of contacting a person designated by the licensee, automatically takes the station off the air within three minutes of any technical malfunction which is capable of causing

interference.

15. Sections 73.1410, 73.1500 and 73.1550 would be removed.

16. Section 73.1570 would be amended by revising paragraph (a) to read as follows:

§73.1570 Modulation levels: AM, FM, and TV aural.

(a) The percentage of modulation is to be maintained at as high a level as is consistent with good quality of transmission and good broadcast service, with maximum levels not to exceed the values specified in paragraph (b). Generally, the modulation should not be less than 85% on peaks of frequent recurrence, but where lower modulation levels may be required to avoid objectionable loudness or to maintain the dynamic range of the program material, the degree of modulation may be reduced to whatever level is necessary for this purpose, even though under such circumstances, the level may be substantially less than that which produces peaks of frequent recurrence at a level of 85%. In the event technical problems make it impossible to maintain the minimum modulation level, a broadcast station may operate at variance without specific authority from the FCC. If the reduced modulation due to technical problems will exceed 10 consecutive days, a notification must be sent to the FCC in Washington, D.C., not later than the 10th day of such operation. The licensee must notify the FCC upon restoration of normal operation. If normal operation cannot be restored within 90 days, an additional notification must be sent to the FCC in Washington, D.C., no later than the 90th day. Thereafter, additional notifications must be sent every 90 days until normal operation is resumed.

* * * * *

17. Section 73.1580 would be revised to read as follows:

§73.1580 Transmission system inspections.

(a) Each AM, FM, and TV station licensee or permittee must conduct periodic complete inspections of the transmitting system and all required monitors to ensure proper station operation.

(b) The Commission may require the licensee to produce a record of transmitting system measurement, adjustment and preventive maintenance procedures and schedules.

18. Section 73.1635 would be amended by revising paragraph (a) (5) to read as follows:

§73.1635 Special temporary authorizations (STA).

(a) * * *

(5) Certain rules specify special considerations and procedures in situations requiring an STA or permit temporary operation at variance without prior authorization from the FCC when notification is filed as prescribed in the particular rules. See §73.62, Directional antenna system tolerances; §73.157, Antenna testing during daytime; §73.158, Directional antenna monitoring points; §73.691, Visual modulation monitoring; §73.1250, Broadcasting emergency information; §73.1350, Transmission system operation; §73.1560, Operating power and mode tolerances; §73.1570, Modulation levels: AM, FM, and TV aural; §73.1615, Operation during modification of facilities; §73.1680, Emergency antennas; and §73.1740, Minimum operating schedule.

* * * * *

19. Section 73.1820 would be amended by revising paragraphs (a) and (a)(2)(iii), by removing paragraphs (b)(4), (b)(5) and (b)(6), by removing the first sentence of paragraph (b)(7) and redesignating paragraph (b)(7) as paragraph (b)(4), and by redesignating paragraph (b)(8) as paragraph (b)(5) to read as follows:

§73.1820 Station log.

(a) Entries must be made in the station log either manually by a person designated by the licensee who is in actual charge of the transmitting apparatus, or by automatic devices meeting the requirements of paragraph (b) of this section. Indications of operating parameters that are required to be logged must be logged prior to any adjustment of the equipment. Where adjustments are made to restore parameters to their proper operating values, the corrected indications must be logged and accompanied, if any parameter deviation was beyond a prescribed tolerance, by a notation describing the nature of the corrective action. Indications of all parameters whose values are affected by the modulation of the carrier must be read without modulation. The actual time of observation must be included in each log entry. The following information must be entered:

* * * * *

(2) * * *

(iii) Entries of the results of calibration of automatic logging devices (see paragraph (b) of this section) or indicating instruments (see §73.67), whenever performed.

* * * * *